

Title (en)

Rotation speed control apparatus for a vehicle door and method to control the rotation speed

Title (de)

Einrichtung zur Steuerung der Drehgeschwindigkeit für eine Fahrzeugaufhängung sowie Verfahren zur Steuerung der Drehgeschwindigkeit

Title (fr)

Dispositif de commande de la vitesse de rotation pour une porte de véhicule et son procédé pour commander la vitesse de rotation

Publication

**EP 1407910 A3 20080423 (EN)**

Application

**EP 03022951 A 20031009**

Priority

JP 2002295782 A 20021009

Abstract (en)

[origin: EP1407910A2] A controller PWM control an opening and closing motor (16) of an opening and closing means, increases a duty ratio of the PWM control according to a given increasing rate just after starting the opening and closing motor (16), reducing the duty ratio to a given value by detecting a start of the open close body, and keeping the given value of the duty ratio for a given period.  
[origin: EP1407910A2] A rotation speed controller increases the duty ratio of pulse width modulation (PWM) control just after starting an opening and closing motor (16), reduces the duty ratio to a given value when a rotation sensor detects the start of a vehicle door e.g. rear gate (1), and keeps the given value of the duty ratio for a given period.

IPC 8 full level

**B60J 5/10** (2006.01); **E05F 15/603** (2015.01); **H02P 1/16** (2006.01); **H02P 3/08** (2006.01)

CPC (source: EP US)

**E05B 81/60** (2013.01 - EP US); **H02P 1/166** (2013.01 - EP US); **H02P 3/08** (2013.01 - EP US); **E05B 81/20** (2013.01 - EP US); **E05F 15/63** (2015.01 - EP US); **E05Y 2201/216** (2013.01 - EP US); **E05Y 2201/246** (2013.01 - EP US); **E05Y 2201/462** (2013.01 - EP US); **E05Y 2400/302** (2013.01 - EP US); **E05Y 2400/514** (2013.01 - EP US); **E05Y 2900/546** (2013.01 - EP US)

Citation (search report)

- [A] US 6092336 A 20000725 - WRIGHT KEVIN [US], et al
- [DA] JP H11236783 A 19990831 - HONDA MOTOR CO LTD
- [A] US 6405485 B1 20020618 - ITAMI EIJI [JP], et al

Cited by

CN104863449A; CN106437390A; CN106030012A; CN103277002A; CN104863447A; CN105113908A; US10378265B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Designated extension state (EPC)

AL LT LV MK

DOCDB simple family (publication)

**EP 1407910 A2 20040414**; **EP 1407910 A3 20080423**; **EP 1407910 B1 20090429**; DE 60327405 D1 20090610; JP 2004131990 A 20040430; JP 3934022 B2 20070620; US 2004070355 A1 20040415; US 6909253 B2 20050621

DOCDB simple family (application)

**EP 03022951 A 20031009**; DE 60327405 T 20031009; JP 2002295782 A 20021009; US 68408003 A 20031009